

A spiral-bound notebook with a brown cover and a light beige, textured paper insert. The spiral binding is on the left side. The text is centered on the paper insert.

# MAST ARM AND STRAIN POLE INSPECTIONS

## NUMBERS OF STRAIN POLES AND MAST ARMS INSTALLED BY DIVISION

DIVISION	STRAIN POLES	MAST ARMS
1	31	75
2	97	46
3	73	62
4	43	6
5	103	186
6	39	51
7	50	13
8	63	26
9	6	44
10		
11	101	18
12	36	8
13		
14	44	42
	686	577



NORTH CAROLINA DEPARTMENT OF  
TRANSPORTATION  
DIVISION OF HIGHWAYS  
BRIDGE MAINTENANCE UNIT

ATTENTION \_\_\_\_\_

## METAL TRAFFIC SIGNAL POLE INSPECTION REPORT

MUNICIPALITY: PITTSBORO STRUCTURE TYPE ID: SMA-CA10  
COUNTY: CHATHAM POLE STRUCTURE NO. 105000 SIGNAL ID NO. 08-0001  
ROUTE: US 15-501 POLE QUADRANT: NORTHEAST  
LOCATION: JCT. US 15-501 W/ SALISBURY ST.  
DESCRIPTION: 1 ARM, ARCHED GALVANIZED STEEL MAST ARM W/ (4) 1-1/4"ø A.B. BASE  
PRESENT CONDITION: FAIR COMPUTER UPDATE: \_\_\_\_\_  
INSPECTION DATE: 3/05/2003 INSPECTION CYCLE: 4 YEAR  
INSPECTED BY: WILLIAM L. YINGER, PE GPS READING: 35D 43.304M N  
REVIEWED BY: TL. BARTLEY 79D 10.617M W  
SPECIAL CONDITIONS: OH POWER APPROX. 8' ABOVE POLE



LOOKING NORTH

SPECIAL INSPECTION  
REQUESTED FOR:

☒ NONE  
☐ ULTRASONIC TEST  
☐ OTHER ( )



ALPHA & OMEGA GROUP  
CIVIL & STRUCTURAL ENGINEERS

7/9/2002

INSPECTION RECORD FOR METAL TRAFFIC SIGNAL POLE													
INSPECTION TYPE: ROUTINE				INSP. DATE: 3/06/2003									
COUNTY: CHATHAM		POLE STRUCTURE NO.: 185000		POLE QUADRANT: NORTHEAST									
ROUTE: US 15-501				SIGNAL ID NO.: 08-0001									
LOCATION: JCT. US 15-501 W/ SALISBURY ST.													
EVALUATION CODE: 0 - 2 Critical; 3 & 4 Poor; 5 & 6 Fair; 7 - 9 Good													
Inspection Item				Grade		Description							
BASE	1. Footing And Vertical Support Anchorage	a. Footing		-		NOT VISIBLE							
		b. Base Plate or Casting		7									
		c. Anchor Rods	d. # of Rods	4	7								
		e. Anchor Rod Nuts		4									
		f. Grout Below Base Plate		-									
		g. Vertical Support Weld to Base Plate		7									
		VERTICAL SUPPORT	2. Vertical Post	a. Post		7							
b. Post Vertical Welds(Seam)				7									
c. Post Horizontal Welds(Splice)				-									
d. Slip Splice	e. # of Splices			-	-								
f. Pole Top				8									
3. Vertical Support Connection To Mast Arm				a. Plates		7							
HORIZONTAL MAST ARM	4. Horizontal Mast Arm		b. Welds		7								
		c. Bolts	d. # of Bolts	4	7								
		e. Nuts		-									
		a. Mast Arm A		7									
		b. Mast Arm Longitudinal Weld (Seam)		7									
		c. Mast Arm Splice Weld (Butt)		-									
		d. Bolted Splice	e. # of Splices	-	-								
		f. Slip Splice	g. # of Splices	-	-								
		h. Orientation of Slip Splice Bolt		-									
		i. End Cap	8										
		j. Mast Arm B		-									
		k. Mast Arm Longitudinal Weld (Seam)		-									
		l. Mast Arm Splice Weld (Butt)		-									
		m. Bolted Splice	n. # of Splices	-	-								
		o. Slip Splice	p. # of Splices	-	-								
		q. Orientation of Slip Splice Bolt		-									
	r. End Cap		-										
11. Damping Device(s)	a. Damping Device(s)		-										
	b. Located from Pole on		-										
	c. Distance from Pole		feet										
	12. Movement	a. Arm	1) Normal Wind	X		16. Equipment Used: BUCKET TRUCK							
			2) Traffic Induced Wind	X									
		b. Pole	1) Normal Wind	X						17. Insp. Man-hours Required	8.0 MHS		
			2) Traffic Induced Wind	X						18. Traffic Control Req'd	YES	X	NO
13. Prompt Action Notice Issued				NO		19. Insp. By: WLY		17. Reviewed By: TUB					

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7/9/2002

# FIELD INSPECTION REPORT

INSPECTION TYPE:	ROUTINE	INSP. DATE:	3/06/2003
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COUNTY: CHATHAM POLE STRUCTURE NO.: POLE QUADRANT: NORTHEAST

ROUTE: US 15-501

**LOCATION:** JCT. US 15-501 W/ SALISBURY ST.

ITEM	RATING	DESCRIPTION
1a FOOTING	- NO GRADE	There is a brick sidewalk around the base. Appears to be sand (no grout) under baseplate. Could not inspect foundation.
1c ANCHOR RODS	7 GOOD	Surface rust on projecting ends.
1e ANCHOR ROD NUTS	4 POOR	No flat washers at anchor bolt nuts (only lock washers).
3a MAST ARM CONN. PLATES	7 GOOD	Few spots of surface rust.
4a MAST ARM A	7 GOOD	1 spot surface rust at 2 ft. from end.
5 CONNECTION OF SIGNAL HEADS TO ARM	7 GOOD	Connection hardware rusted.
6 CONNECTION OF SIGNS TO ARM	7 GOOD	Connection hardware rusted.
INSPECTED BY:	WLY	REVIEWED BY: TJS

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7/9/2002

MAINTENANCE NEEDS			
INSPECTION TYPE: ROUTINE		INSP. DATE: 3/06/2003	
COUNTY: CHATHAM	POLE STRUCTURE NO.: 185000		POLE QUADRANT: NORTHEAST
ROUTE: US 15-501		SIGNAL ID NO.: 08-0001	
LOCATION: JCT. US 15-501 W/ SALISBURY ST.			
NO.	DESCRIPTION		
1	Provide flat washers under lock washers at all 4 anchor bolts.		
INSPECTED BY: WLY			
REVIEWED BY: TLB			

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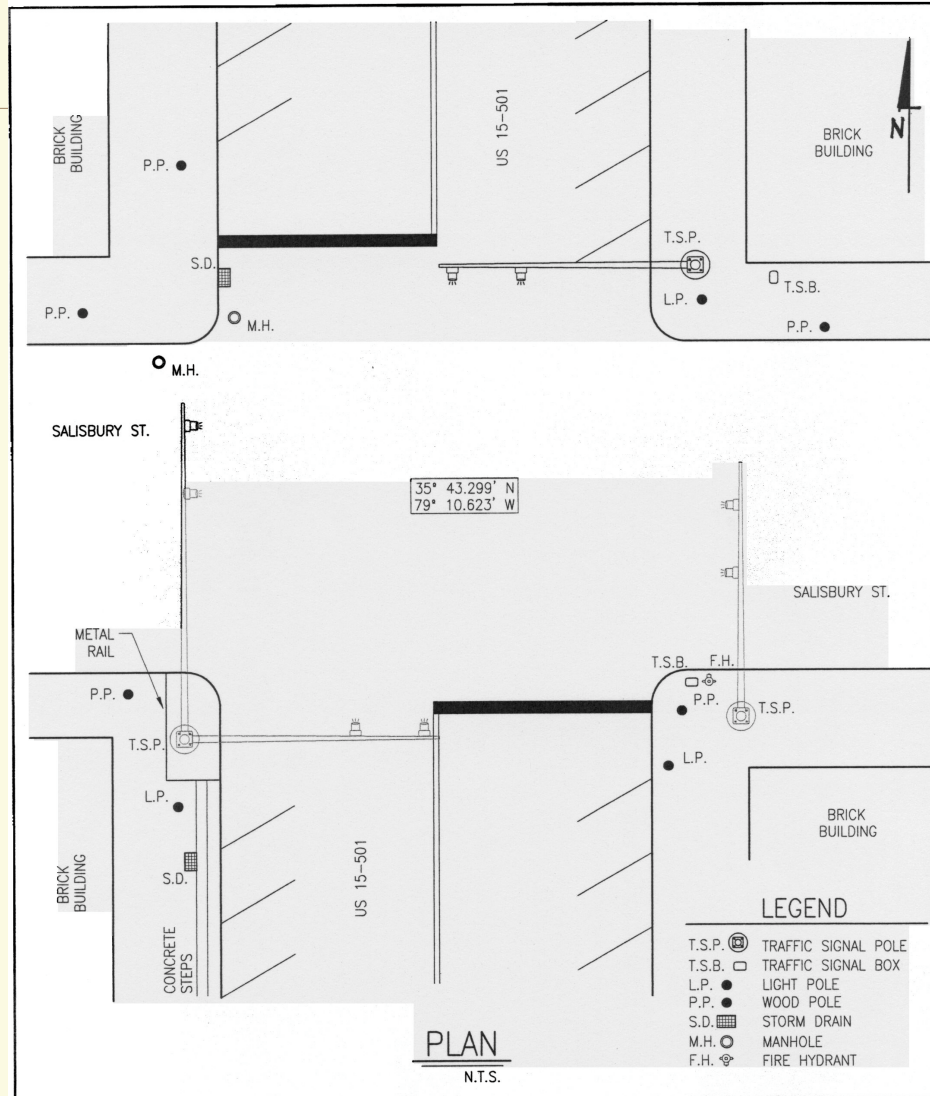


ALPHA & OMEGA GROUP  
CIVIL & STRUCTURAL ENGINEERS

# FIELD SKETCH

85000

COUNTY: CHATHAM SIGNAL ID NO. 08-0001  
PREPARED BY: R.W. MINGIS, EI DATE: 3/06/2003



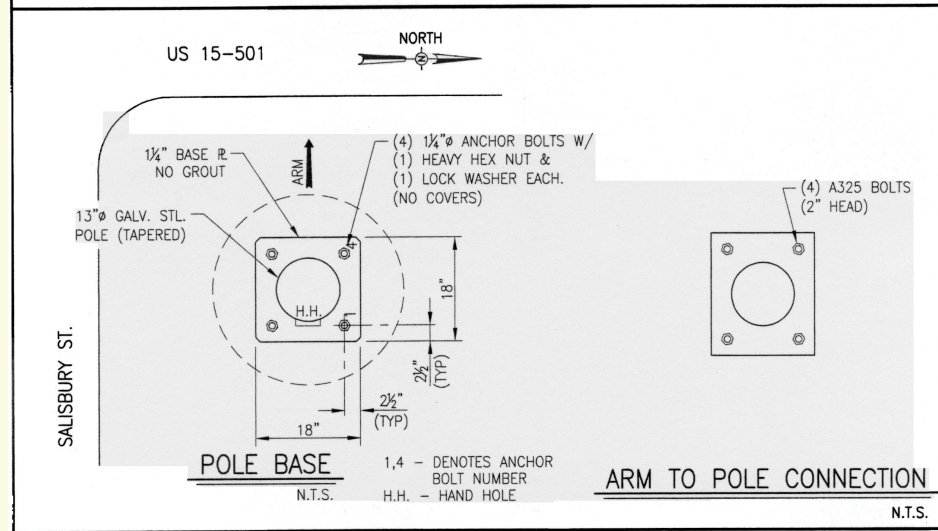
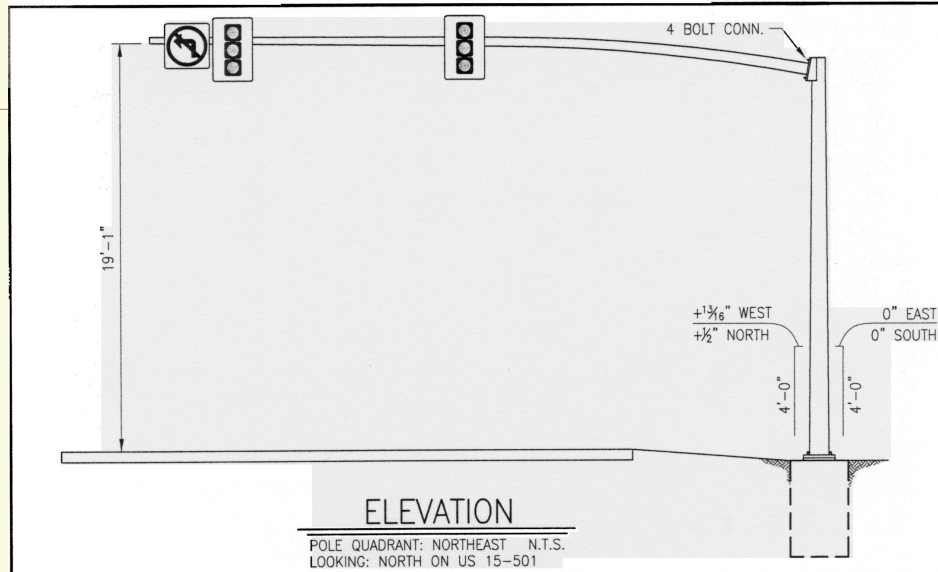


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# FIELD SKETCH

85000

COUNTY: CHATHAM SIGNAL ID NO. 08-0001  
PREPARED BY: R.W. MINGIS, EI DATE: 3/06/2003







NORTH CAROLINA DEPARTMENT OF  
TRANSPORTATION  
DIVISION OF HIGHWAYS  
BRIDGE MAINTENANCE UNIT

ATTENTION \_\_\_\_\_

## METAL TRAFFIC SIGNAL POLE INSPECTION REPORT

MUNICIPALITY: PITTSBORO STRUCTURE TYPE ID: SW-DS15  
COUNTY: CHATHAM POLE STRUCTURE NO. 185003 SIGNAL ID NO. 08-0247  
ROUTE: US 64 POLE QUADRANT: NORTHEAST  
LOCATION: JCT US 64 W/ NC 87-902

DESCRIPTION: GALVANIZED STEEL STRAIN POLE W/ (4) 1-3/4" A.B. BASE

PRESENT CONDITION: GOOD COMPUTER UPDATE: \_\_\_\_\_  
INSPECTION DATE: 3/05/2003 INSPECTION CYCLE: 4 YEAR  
INSPECTED BY: WILLIAM L. YINGER, PE GPS READING: 35D 43.247M N  
REVIEWED BY: T. GLENN ZERLO 79D 11.203M W  
SPECIAL CONDITIONS: OH POWER / PHONE APPROX. 10' SOUTH OF POLE

SPECIAL INSPECTION  
REQUESTED FOR:

☒ NONE  
☐ ULTRASONIC TEST  
☐ OTHER ( )



LOOKING EAST



ALPHA & OMEGA GROUP  
CIVIL & STRUCTURAL ENGINEERS

7/9/2002

INSPECTION RECORD FOR METAL TRAFFIC SIGNAL POLE									
INSPECTION TYPE:		ROUTINE				INSP. DATE:		3/06/2003	
COUNTY:		CHATHAM		POLE STRUCTURE NO.:		185003		POLE QUADRANT: NORTHEAST	
ROUTE:		US 64		SIGNAL ID NO.:		08-0247			
LOCATION: JCT US 64 W/ NC 87-902									
EVALUATION CODE: 0 - 2 Critical; 3 & 4 Poor; 5 & 6 Fair; 7 - 9 Good									
		Inspection Item				Grade		Description	
BASE	1. Footing And Vertical Support Anchorage	a. Footing				-		NOT VISIBLE	
		b. Base Plate or Casting				7			
		c. Anchor Rods		d. # of Rods		4		7	
		e. Anchor Rod Nuts				7			
		f. Grout Below Base Plate				-		NONE	
		g. Vertical Support Weld to Base Plate				7			
		VERTICAL SUPPORT	2. Vertical Post	a. Post				7	
b. Post Vertical Welds(Seam)				8					
c. Post Horizontal Welds(Splice)				-					
d. Slip Splice				e. # of Splices		-		-	
f. Pole Top				7		NO CHAIN			
VERTICAL SUPPORT	3. Vertical Support Connection To Mast Arm			a. Plates				-	
		b. Welds				-			
		c. Bolts		d. # of Bolts		-		-	
		e. Nuts				-			
						-			
HORIZONTAL MAST ARM	4. Horizontal Mast Arm	a. Mast Arm A				-			
		b. Mast Arm Longitudinal Weld (Seam)				-			
		c. Mast Arm Splice Weld (Butt)				-			
		d. Bolted Splice		e. # of Splices		-		-	
		f. Slip Splice		g. # of Splices		-		-	
		h. Orientation of Slip Splice Bolt							
		i. End Cap				-			
		j. Mast Arm B				-			
		k. Mast Arm Longitudinal Weld (Seam)				-			
		l. Mast Arm Splice Weld (Butt)				-			
		m. Bolted Splice		n. # of Splices		-		-	
		o. Slip Splice		p. # of Splices		-		-	
		q. Orientation of Slip Splice Bolt							
		r. End Cap				-			
	5. Connection of Signal Heads to Arm					-		14. Underground Utilities:	
		6. Connection of Signs to Arm				-			
		7. Connection of Strain Wires to Pole:				7			
	8. Connection of Light to Pole:					-		15. Trenching or Excavation:	
		9. Connection of Camera to Pole				-			
		10. Connection of Camera to Arm				-			
11. Damping Device(s)	a. Damping Device(s)					-		16. Equipment Used: BUCKET TRUCK	
		b. Located from Pole on				-			
		c. Distance from Pole				feet			
12. Movement	a. Arm	1) Normal Wind		Normal:		Excessive:		17. Insp. Man-hours Required	
		2) Traffic Induced Wind							
		1) Normal Wind		X					
		2) Traffic Induced Wind		X					
13. Prompt Action Notice Issued		NO				19. Insp. By: WLY		17. Reviewed By: T42	

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7/9/2002

## FIELD INSPECTION REPORT

INSPECTION TYPE:	ROUTINE	INSP. DATE:	3/06/2003
COUNTY:	CHATHAM	POLE STRUCTURE NO.:	185003 POLE QUADRANT: NORTHEAST
ROUTE:	US 64	SIGNAL ID NO.:	08-0247
LOCATION: JCT US 64 W/ NC 87-902			
ITEM	RATING	DESCRIPTION	
1a FOOTING	- NO GRADE	There is asphalt pavement around the base to bottom of base plate. There is a 1-1/2" gap at one corner of the baseplate, allowing partial inspection. Footing is not accessible.	
1b BASE PLATE OR CASTING	7 GOOD	Surface rust at anchor bolts. No grout pad and no animal screen.	
1c ANCHOR RODS	7 GOOD	Surface rust at projecting ends.	
1e ANCHOR ROD NUTS	7 GOOD	Spot surface rust on washers.	
1g VERTICAL SUPPORT BASE PLATE WELD	7 GOOD	At a few locations, galvanized coating is chipped and surface rust beginning.	
2a VERTICAL POST	7 GOOD	1 hand hole cover screw is missing. Few spots of surface rust (top 5 ft.)	
7 CONNECTION OF STRAIN WIRES TO POLE	7 GOOD	Surface rust on U-Bolt strain wire connection.	
INSPECTED BY:	WLY	REVIEWED BY:	TGZ

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7/9/2002

## MAINTENANCE NEEDS

INSPECTION TYPE:	ROUTINE	INSP. DATE:	3/06/2003
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COUNTY: CHATHAM POLE STRUCTURE NO.: 185003 POLE QUADRANT: NORTHEAST

ROUTE: US 64 SIGNAL ID NO.: 08-0247

LOCATION: JCT US 64 W/ NC 87-902

NO.

DESCRIPTION

- 1 Provide a grout pad or animal screen to prevent access to the pole interior. Verify no interior damage from animal activity.
- 2 Replace missing hand hole cover screw.

INSPECTED BY:

WLY

REVIEWED BY:

TGZ



# FIELD SKETCH

185003

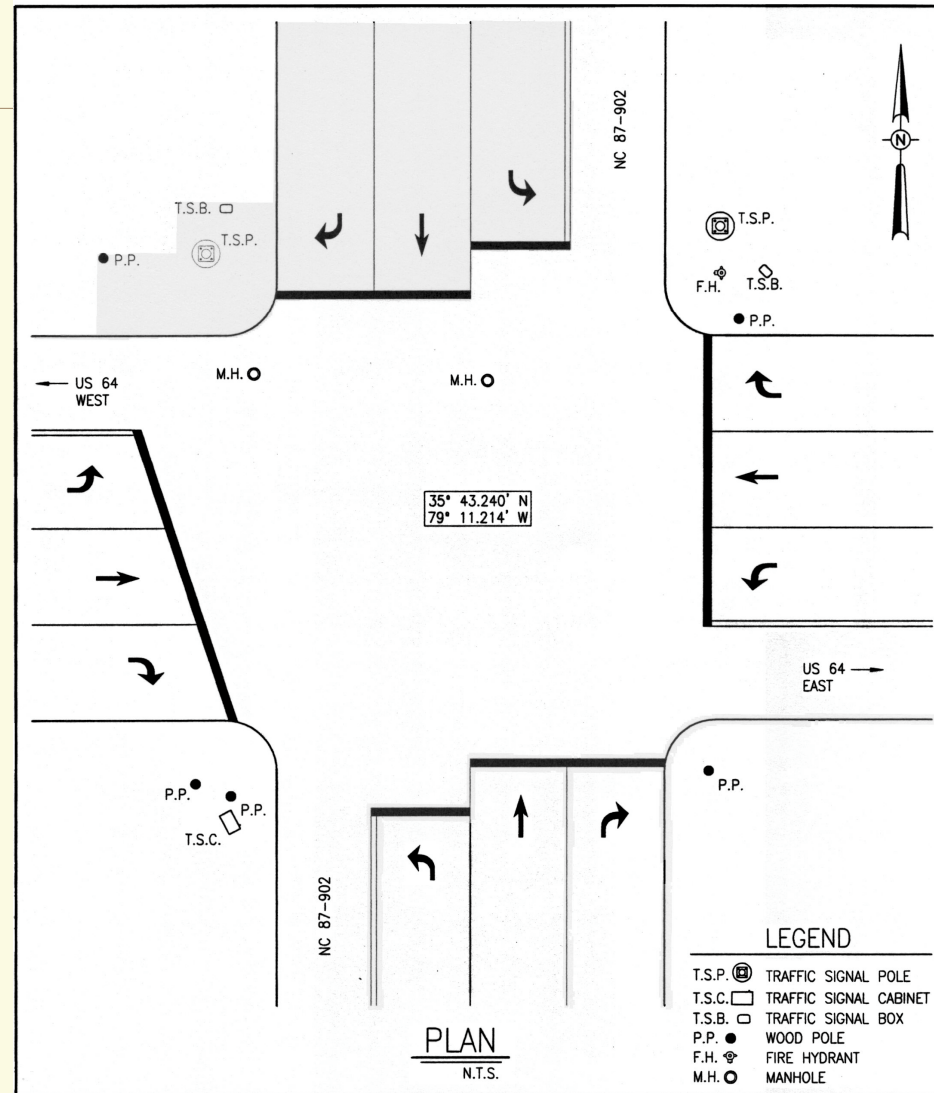


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PREPARED BY: R.W. MINGIS, EI

D.W. 08-0247

DATE: 3/06/2003



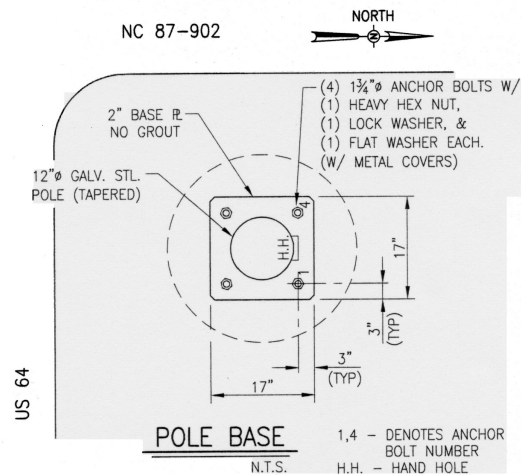


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CIVIL & STRUCTURAL ENGINEERS

# FIELD SKETCH

185003

COUNTY: CHATHAM SIGNAL ID NO. 08-0247  
PREPARED BY: R.W. MINGIS, EI DATE: 3/06/2003



NOTE: NO SCREEN (OPEN BASE)















4.30.2003











4. 30. 2003

















